

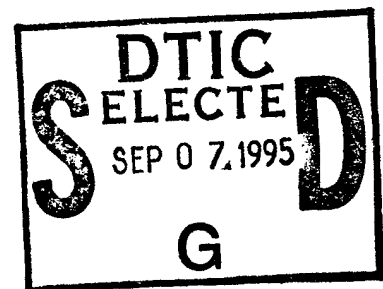


**A Comparison
of the Aeromedical Administrative Requirements
for U.S. Air Forces and Major Allies**

By

Kevin T. Mason

Aircrew Protection Division



December 1994

19950905 035

Approved for public release; distribution unlimited.

**United States Army Aeromedical Research Laboratory
Fort Rucker, Alabama 36362-0577**

Notice

Qualified requesters

Qualified requesters may obtain copies from the Defense Technical Information Center (DTIC), Cameron Station, Alexandria, Virginia 22314. Orders will be expedited if placed through the librarian or other person designated to request documents from DTIC.

Change of address

Organizations receiving reports from the U.S. Army Aeromedical Research Laboratory on automatic mailing lists should confirm correct address when corresponding about laboratory reports.

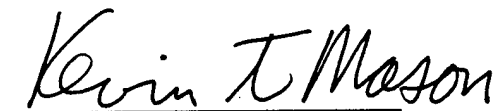
Disposition

Destroy this document when it is no longer needed. Do not return it to the originator.

Disclaimer

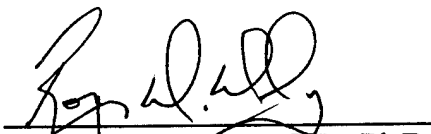
The views, opinions, and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other official documentation. Citation of trade names in this report does not constitute an official Department of the Army endorsement or approval of the use of such commercial items.

Reviewed:



KEVIN T. MASON
LTC, MC, MFS
Director, Aircrew Protection
Division

Released for publication:



ROGER W. WILEY, O.D., Ph.D.
Chairman, Scientific
Review Committee



DENNIS F. SHANAHAN
Colonel, MC, MFS
Commanding

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
1a. REPORT SECURITY CLASSIFICATION Unclassified			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release, distribution unlimited		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S) USAARL Report No. 95-5			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION U.S. Army Aeromedical Research Laboratory		6b. OFFICE SYMBOL (If applicable) MCMR-UAD	7a. NAME OF MONITORING ORGANIZATION U.S. Army Medical Research and Materiel Command		
6c. ADDRESS (City, State, and ZIP Code) P.O. Box 620577 Fort Rucker, AL 36362-0577			7b. ADDRESS (City, State, and ZIP Code) Fort Detrick Frederick, MD 21702-5012		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8c. ADDRESS (City, State, and ZIP Code)			10. SOURCE OF FUNDING NUMBERS		
PROGRAM ELEMENT NO. 62787A		PROJECT NO. 30162787A8	TASK NO. 78 HC	WORK UNIT ACCESSION NO. 144	
11. TITLE (Include Security Classification) A comparison of the aeromedical administration requirements for U.S. Air Forces and major allies					
12. PERSONAL AUTHOR(S) Kevin T. Mason					
13a. TYPE OF REPORT Final		13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Year, Month, Day) 1994 December		15. PAGE COUNT 16
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	aviation medicine standardization policies		
14	02				
15	02				
19. ABSTRACT (Continue on reverse if necessary and identify by block number)					
<p>Although numerous international agreements provide for interchangeability of aircrew medical categories for the medical examination of aircrew visiting or jointly serving with sister air forces or allied air forces, the basic administrative processes remain unique between air forces. Publication of information regarding aeromedical administration would facilitate an understanding of regulatory references, requirements, and terminology between air forces. A better understanding and sharing of information might provide for further standardization of basic administrative terms and processes for aircrew medical examination. The Air Standardization Coordinating Committee tasked the U.S. Army Aeromedical Research Laboratory to develop such a publication.</p>					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL Chief, Science Support Center			22b. TELEPHONE (Include Area Code) (205) 255-6907		22c. OFFICE SYMBOL MCMR-UAX-SI

Acknowledgments

The paper was made possible due to the contributions and review of Group Captain L. Andrew Watson, Group Captain Rodney I. Fawcett, and Wing Commander David L. Emonson of the Royal Australian Air Force; Major Hugh J. O'Neill of the Canadian Forces, Colonel Erich Röedig of the German Air Force, Wing Commander Len Bagnall of the New Zealand Royal Air Force, Group Captain E. John Thornton of the Royal Air Force, Lieutenant Colonel Penny Giovanetti of the United States Air Force, and Captain James Baker of the United States Navy.

Accession For	
NTIS	CRA&I <input checked="checked" type="checkbox"/>
DTIC	TAB <input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

Table of contents

	Page
List of tables	3
Military relevance	3
Method	3
Results	3
Royal Australian Air Force	3
Australian Regular Army	4
Royal Australian Navy	5
Canadian Forces	6
German Federal Armed Forces	7
New Zealand Army, Air Force, and Navy	8
Royal Air Force and Army (United Kingdom)	9
Royal Navy (United Kingdom)	10
United States Air Force	11
United States Army	12
United States Navy	13
References	15
Appendix A	16

List of tables

Table

1. Basic architecture of aircrew medical examination administration	3
2. Aeromedical disposition categories of the Royal Australian Air Force	4
3. Aeromedical disposition categories of the Royal Australian Navy	5
4. Aeromedical disposition categories of the Canadian Forces	6
5. Aeromedical disposition categories of the German Federal Armed Forces	7
6. Aeromedical disposition categories of the New Zealand Army, Air Force, and Navy	8

List of tables (Continued).

7. Special requirements for United Kingdom air forces examinations	9
8. Aeromedical disposition categories of the Royal Air Force and Army	10
9. Aeromedical disposition categories of the Royal Navy	10
10. Aeromedical disposition categories of the U.S. Air Force	11
11. Classes of medical fitness, U.S. Army	12
12. Aeromedical disposition categories of the U.S. Army	13
13. Classes of medical fitness, U.S. Navy	13
14. Aeromedical disposition categories of the U.S. Navy	14

Military relevance

Although numerous international agreements provide for interchangeability of aircrew medical categories for the medical examination of aircrew visiting or jointly serving with sister air forces or allied air forces, the basic administrative processes remain unique between air forces (Air Standardization Coordinating Committee, 1983; Air Standardization Coordinating Committee, 1986; North Atlantic Treaty Organization, 1988). Publication of information regarding aeromedical administration would facilitate an understanding of regulatory references, requirements, and terminology between air forces. A better understanding and sharing of information might provide for further standardization of basic administrative terms and processes for aircrew medical examination. The Air Standardization Coordinating Committee tasked Aviation Epidemiology Data Register project officers, U.S. Army Aeromedical Research Laboratory, to develop the publication.

Method

Aeromedical administration experts of the military forces for Australia, Canada, Germany, Great Britain, New Zealand, and United States of America, were asked to provide information shown in Table 1. The information was compiled. Each air force was provided an opportunity to review the final product. German regulations were translated to English by the German Air Force.

Table 1.
Basic architecture of aircrew medical examination administration.

Medical standards reference	What medical standards reference applies to examinees to determine their fitness for flying duties?
Scope of the examination	How detailed is the examination for each aircrew age group?
Periodicity of the examination	How often are aircrew medical examinations required?
Examination validity period	How long is the examination or medical certification valid?
Aeromedical disposition	What terminology describes the aeromedical disposition and/or medical certification upon completion of the examination?

Results

Royal Australian Air Force

Medical standards reference. ADFP 701, Recruit medical examination procedures.

Scope of the examination. Complete medical examination and physical fitness testing.

Periodicity of the examination. Annual.

Validity period of the examination. The examination is valid for 12 months. Aircrew with temporarily restricted medical categories are reviewed on a case by case basis. Aircrew are examined after an aircraft accident or incident where aeromedical aspects are suspected.

Aeromedical disposition. Table 2 shows the disposition categories. Employment standard designed by "A" indicate fitness for flying duties. Time qualifiers indicate duration of the condition with "T" reflecting temporary restriction not exceeding 2 years or duration unknown and "P" reflecting permanent restriction.

Table 2.
Aeromedical disposition categories of the Royal Australian Air Force.

Category	Description
A1	Medically fit for full flying duties.
A2	Medically fit for full flying duties with special precautions stated in the amplifying comments.
A3	Medically fit for restricted flying duties as stated in the amplifying comments.
A5	Medically unfit for flying duties (aircrew).
A9	Indicates the application for multiple 'A' factors with details stated in the amplifying comments.

Australian Regular Army

Medical standards reference. ADFP 701, Recruit Medical Examination Procedures.

Scope of the examination. Complete medical examination.

Periodicity of the examination. Aircrew require an annual Special Medical Board (SMB). A SMB or Reclassification Medical Board also is required after an aircraft accident, a pilot develops illness or injury which could affect efficiency as a pilot, or a medical officer considers the member's current PULHEEMS assessment to be incorrect.

Validity period of the examination. One year until the end of the month in which the next aircrew medical is due.

Aeromedical disposition. Aircrew are required to have an employment standard represented by a PULHEEMS profile of "22222/1 2/1 22," physical evaluation standard of "Fit Everywhere," and colour perception standard of 2.

Royal Australian Navy

Medical standards reference. ADFP 701, Recruit medical examination procedures.

Scope of the examination. Complete medical examination and adherence to weight standards.

Periodicity of the examination. All aircrew receiving flying pay are examined annually and:

- (1) Before returning to flying duties after a period on the sick list due to a condition that does not meet the flying duty medical fitness standards.
- (2) After an accident resulting in medical complications.
- (3) When the member selected for flying training has not commenced their training within 6 months of a previous medical for fitness to fly.
- (4) When aircrew appear before an Aircrew Medical Board.
- (5) Prior to proceeding overseas for exchange service or flying courses.

Validity period of the examination. One year.

Aeromedical disposition. Table 3 shows the aeromedical disposition categories. For example, qualifier "A1" is pilot fit for full flying duties.

Table 3.

Aeromedical disposition categories of the Royal Australian Navy.

1. Primary qualifiers	
A	Flying duties as a pilot
B	Flying duties other than pilot
2. Secondary qualifiers	
1	Fit for full flying duties.
2	Fit for limited flying duties with limitations stated in brackets.
t	Temporarily unfit.
h	Flying duties at Naval Air Station Nowra only, and no seaborne platform operations.
p	Permanently unfit for flying duties.

Canadian Forces

Medical standards reference. Canadian forces publication 154 and Canadian forces administrative order 34-30.

Scope of the examination. See Table A-1.

Periodicity of the examination. See Table A-1.

Validity period of the examination. Group "A" is valid for 2 years and Group "B" is valid for 5 years if under age 40.

Aeromedical disposition. Table 4 shows the aeromedical disposition categories (grade). The "A" factor is for aircrew, nonaircrew flying personnel and passengers.

Table 4.
Aeromedical disposition categories of the Canadian Forces.

Category	Description
A1	Pilots are medically fit for unrestricted duty in all CF aircraft.
A2	Navigators, flight engineers, observers and helicopter reconnaissance observers are medically fit for unrestricted duty in all CF aircraft where such positions are required.
A3	Aircrew with specified medical restrictions as stated.
A4	Aircrew are medically fit for unrestricted air-borne duty, but whose duties do not entail actual operation of the aircraft to which they are assigned. An A4 classification may be annotated "while so employed" (WSE) when it is awarded to members of trades which are not normally associated with flying (e.g., clerk assigned as flight attendant). Air traffic control and air weapons control personnel also must maintain an A4 category for unrestricted employment.
A5	Nonaircrew members of the CF medically fit to fly as passengers in CF aircraft.
A6	CF members medically unfit to fly in any capacity.
A7	Aircrew who are medically unfit for any flight.

Federal Armed Forces of Germany

Medical standards reference. Joint services regulation (Zdv) No. 46/6 specifies the medical requirements of the operational pilot, and supplements the special directives of the German Air Force Surgeon General. Class (WFV) I standards apply to pilot candidates, Class (WFV) II standards apply to active pilots, and Class (WFV) III apply to other aircrew members.

Scope of the examination. Class I examinations are conducted centrally at the German Air Force Institute of Aviation Medicine. The examination includes a complete physical examination, modern diagnostic procedures such as cardiac ultrasound, and psychological testing. Class II examinations are conducted annually by the flight surgeon, but every 3 years a more comprehensive examination is conducted centrally at the German Air Force Institute of Aviation Medicine up to age 40. After age 40, all examinations are conducted at the institute. Class III examinations are conducted by the flight surgeon. The scope of Class III examinations may depend on the duties performed at the discretion of the flight surgeon.

Periodicity of the examination. Annually. Nonperiodic examinations are conducted following a flight mishap, after the sudden occurrence or aggravation of disease, and in the case of physical performance deterioration which cannot be tolerated according to regulation. Special followup examinations may be required at the German Air Force Institute of Aviation Medicine.

Validity period of the examination. Medical certification is valid for 1 year until the day before the pilot's birthday.

Aeromedical disposition. Table 5 shows the aeromedical disposition categories. For Classes II and III, aircrew members may be issued special authorizations to fly. The flight surgeon might impose additional restrictions and/or obligations that might limit flying duties or assignments.

Table 5.
Aeromedical disposition categories of the German Federal Armed Forces.

Category	Description
Fit for flying duties	Applies to Classes I and II.
Fit for aircrew member duties	Applies to Class III only.
Duty not in flight	Temporary nonfitness for flying duties.
Not fit	Permanent nonfitness for flying duties.

New Zealand Army, Air Force, and Navy

Medical standards reference. DM-18, Defense council orders for medical services for officer aircrew and airman aircrew.

Scope of the examination. Complete annual examination with annual audiogram, chest X-ray initially, and then every 5 years. Electrocardiogram initially, and at ages 20, 25, 30, 35, 40; then every 2 years thereafter.

Periodicity of the examination. All Army and Navy commissioned and noncommissioned aircrew, including parachute jumping instructors, complete an annual medical assessment aligned to their birth month. A proposal under evaluation may extend the period between medical assessments to 2 years for certain categories of aircrew.

Validity period of the examination. Medical certification is valid for 12 months.

Aeromedical disposition. Table 6 shows the aeromedical disposition categories. Aircrew will maintain a medical employment standard not less than A3.

Table 6.

Aeromedical disposition categories of the New Zealand Army, Air Force, and Navy.

Category	Description
A1	Medically fit for full flying duties.
A2	Medically fit for full flying duties with special precautions stated in the amplifying comments.
A3	Medically fit for restricted flying duties as stated in the amplifying comments.
A5	Medically unfit for flying duties.

Royal Air Force and Army (United Kingdom)

Medical standards references. AP 1269A, Assessment of medical fitness and JSP346, Systems of medical classification.

Scope of the examination. The periodic medical examinations (PME) is a physical examination carried out by a service medical officer. Special requirements are outlined in Table 7.

Table 7.
Special requirements for United Kingdom air forces examinations.

Timing	Test (blood taken after 10 hour fast)*
All aircrew, at all testing	ESR**
Aircrew selection	Sickle cell, bilirubin, EEG, and Chest X-ray
Ages 30, 40, and 50	TSH
Aircrew selection, age 25 and 30; every 2 years to age 40; and then annually	Hb, PCV, MCV, MCHC, WBC, and platelets; total protein, albumin, uric acid, creatinine, calcium, glucose, cholesterol, triglycerides, alkaline phosphatase, SGOT, SGPT, and GGTP; and electrocardiogram (every 6 months over age 50 if flying)

* Royal Navy does not have mandatory blood testing at PME.

** Where ESR is not feasible, attempt to obtain a C-reactive protein or plasma viscosity.

Periodicity of the examination. PMEs are performed annually, aligned with the birth month. Air traffic controllers and fighter controllers who do not fly on AWACs are classed as groundcrew, but have an annual PME to confirm their medical employment standard (MES).

Validity period of the examination. Medical certification is valid for 12 months.

Aeromedical disposition. Aircrew hold an MES consisting of 3 factors: A - Air, G - Ground, Z - Zone. Each factor is allotted a number which indicates the fitness of an individual to operate in each area. For aircrew, the important factor is the A factor, which may be as shown in Table 8.

Table 8.
Aeromedical disposition categories of the Royal Air Force and Army.

Category	Description
A1	Fit for full flying duty.
A2	Fit for full flying duty, but eye and/or hearing standards are below A1 standard.
A3	Fit for flying duties with specified temporary or permanent flying duty limitations. Temporary limitation may only be held for a maximum period of 18 months.
A4	Fit for aviation groundcrew duties and "fit for passenger flying duty." A4 applies to certain categories of personnel not classed as aircrew, but who fly without operating aircraft controls, for example, flight nursing attendants.

Royal Navy (United Kingdom)

Medical standards references. BR 1750A, Handbook of naval medical standards and JSP346, Systems of medical classification.

Scope of the examination. The periodic medical examinations is a physical examination carried out by a service medical officer. Special requirements are outlined in Table 7.

Periodicity of the examination. Annual.

Validity period of the examination. One year. Valid until the last day of the 12th month.

Aeromedical disposition. Table 9 shows aeromedical disposition categories.

Table 9.
Aeromedical disposition categories of the Royal Navy.

1. Primary qualifiers	
A	Pilot duties.
B	Aircrew duties other than pilot.
2. Secondary qualifiers	
1	Full flying duties.
2	Limited flying duties, limitation stated.
t	Temporarily unfit.
h	United Kingdom disembarked flying.
p	Permanently unfit for flying.

United States Air Force

Medical standards reference. AFR 160-43, Medical examination and medical standards. Major commands may issue more stringent standards as required. Categories of medical fitness standards include: Class I- pilot applicants, Class IA- navigator applicants, Class II- pilots and navigators (students and trained), applicant and trained flight surgeons, and Class III- all other aircrew, such as loadmasters, flight engineers, flight nurses, etc.

Scope of the examination. Comprehensive examinations are done on initial consideration for flying duties, then every 3 years. Abbreviated screening examinations are done in the interim years when a comprehensive examination is not required. Physical examination is not done unless deemed necessary by the local flight surgeon. Electrocardiograms are required on the initial examination, then annually after age 35. Intraocular pressure measurement is required annually after age 29. Stool hemoccult testing is required annually after age 40.

Periodicity of the examination. Annually, aligned with the birth month. Additional examination may be required after aircraft mishap, upon discovery of an interim medical disqualification, or prior to a flying evaluation board.

Validity period of the examination. Initial examinations are valid for 24 months. For all other examinations, the medical certification is valid until the last day of the next birth month.

Aeromedical disposition. Table 10 shows the aeromedical disposition categories.

Table 10.
Aeromedical disposition categories of the U.S. Air Force.

1. Qualified	
2. Disqualified by failure to meet a medical standard, but is acceptable with a waiver	
Class II waiver	Unrestricted
Class IIA waiver	Fly tanker, transport, bomber only
Class IIB waiver	Fly non-ejection seat aircraft only
Class IIC waiver	Fly with specific restrictions
3. Disqualified	
DNIF	Temporary duties not to include flying for a period not to exceed 1 year
Disqualified	Indefinitely suspended from flying duties

United States Army

Medical standards reference. Chapters 2, 4, and 6 of Army Regulation AR 40-501 specify the medical standards of fitness for flying duty. Aeromedical Policy Letter series for specific disease categories provide detailed regulatory guidance. Classes of medical fitness standards are shown in Table 11.

Table 11.
Classes of medical fitness, U.S. Army.

Class	Description
1	Warrant officer applicants to Army aviator training.
1A	Commissioned officer applicants to Army aviator training.
2	Student aviators, and trained Army and civilian aviators controlling Army aircraft.
2F	Flight surgeons and aeromedical physician assistants.
2S	Aeroscout observers who operate aircraft flight controls.
3	All other aircrew who do not operate aircraft flight controls.
4	Military and civilian air traffic controllers operating in Army air traffic control facilities.

Scope of the examination. Army Aeromedical Technical Bulletin 2, Army flight surgeon AEDR data entry and office administration guide, and Chapter 6, Army regulation 40-501, Medical fitness standards, specify the requirements for examinations. Comprehensive examinations are required on all initial aircrew examinations, then every 3 years at ages 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49; then annually beginning age 50. Abbreviated interim examinations are required in years when comprehensive examinations are not required. Additional screening tests for cardiovascular disease, glaucoma, breast carcinoma, colorectal carcinoma, prostate carcinoma, and diabetes are required annually beginning at age 40.

Periodicity of the examination. Class 1 and 1A are performed as required based on period of validity. All other examinations are performed annually and are aligned with the birth month. Additional examinations may be required when a medical condition does not meet the flying duty medical fitness standards and results in a permanent medical disqualification, an accident/mishap results in medical complications, the aircrew member appears before a flying evaluation board due to nonmedical disqualifications, or a major medical disqualification is discovered.

Validity period of the examination. Class 1 and 1A physicals are valid for 18 months. For all other examinations, the medical certification is valid for 1 year until the last day of the next birth month.

Aeromedical disposition. Table 12 shows the aeromedical disposition categories.

Table 12.
Aeromedical disposition categories of the U.S. Army.

1. Qualified	
QU	Qualified. Fit for full flying duties.
QS	Qualified, spectacles. Fit for full flying duties with corrective lenses worn in flight.
QI	Qualified, Information only. Fit for full flying duties, but a potentially disqualifying condition was reviewed and found fit during that examination.
2. Disqualified (DQ) due to failure to meet the medical standards of fitness for flying duty. Disqualification may result in:	
DNIF	Temporary medical suspension from flying duties due to a temporary unfitness.
WR	Waiver recommended for a permanent medical disqualification, but flying duties are permitted with or without restrictions stated in the waiver letter.
SR	Medical termination from aviation service (medical suspension) recommended for a permanent medical disqualification.
ME	Medical elimination from aviation training programs.

United States Navy

Medical standards reference. Manual of the Medical Department, U.S. Navy NAVMED P-117, specifies the medical standards of fitness for flying duty. Different medical standards apply to aircrew with a grouping as shown in Tables 13 and 14.

Table 13.
Classes of medical fitness, U.S. Navy.

1. Class I	Student and trained Naval aviators controlling Navy aircraft. They are placed in one of three Service Groups.
Group I	These aviators meet Service Group I medical standards.
Group II	These aviators meet Service Group II medical standards.
Group III	These aviators meet Service Group III medical standards.
2. Class II	Naval flight officers, Naval flight surgeons, aerospace physiologists, aerospace experimental psychologists, other nonrated naval aircrew.

Scope of the examination. Comprehensive examinations are required on all initial aircrew examinations, then every 3 years at ages 21, 24, 27, 30, 33, 36, and 39; then annually beginning age 40. Student aviator officers undergo a comprehensive examination annually. Abbreviated interim examinations are required in years when comprehensive examinations are not required. The examination is expanded as required based on interval medical history, health risk assessment, and physical findings.

Periodicity of the examination. Examinations are performed annually and are aligned with the birth month. Additional examinations are required when a disqualifying medical condition is discovered.

Validity period of the examination. Medical certification is valid until the last day of the next birth month.

Aeromedical disposition. Table 14 shows the aeromedical disposition categories.

Table 14.
Aeromedical disposition categories, U.S. Navy.

1. PQ	Physically qualified.
Service Group I	These aviators have unlimited and unrestricted flight duties.
Service Group II	These aviators are restricted from shipboard aircrew duties, except helicopters.
Service Group III	These aviators are restricted to aircraft with dual controls and must be accompanied by a pilot or copilot in Service Groups I or II.
2. NPQ	Not physically qualified
Waivers	Waivers may be granted based on the medical condition, needs of the service, experience, performance, and aviation safety.
Temporary waivers	Temporary waivers may be granted by a local board of flight surgeons pending final review by the Naval waiver authority.

References

- Air Standardization Coordinating Committee. 1983. Interchangeability of aircrew medical categories. Washington, DC: Air Standardization Coordinating Committee. ASCC AIR STD 61/32.
- Air Standardization Coordinating Committee. 1986. Medical examination of aircrew following an aircraft accident or incident. Washington, DC: Air Standardization Coordinating Committee. ASCC ADV PUB 61/56.
- North Atlantic Treaty Organization. 1988. NATO STANAG 3526. Brussels: Military Agency for Standardization. Agreement No. MAS(AIR)40-AMD/3526.

Appendix A.

Table A-1.
Scope and periodicity of aircrew examinations - Canada.

MILITARY OCCUPATION/ OCCUPATIONAL SPECIALTY	MOC	MINIMUM MEDICAL PROFILE	TYPE 1 MEDICAL	TYPE 2 MEDICAL	PERIODICITY (see bottom for definitions)					Cardiac Risk Evaluation	
					Full Eye Examination						
					AGE <=40	AGE >40	AGE >50	AGE >40	AGE >50		
LAB GROUP 1											
NO GLASSES WITH GLASSES											
GROUP A											
Pilot	32	122/22/1	C	B	D	C	C	A	D	C	A
Air Nav	31	322/22/1	C	B	D	D	C	C	D	C	A
Flt Eng	65/091	322/22/2	C	B	D	D	C	C	D	C	A
AESO	081	322/22/2	C	B	D	D	C	C	D	C	A
TAC HEL OBS	011/021	222/22/2	C	B	D	D	C	A	D	C	A
ATC	63	322/33/4	C	B	D	D	C	A	D	C	A
AWC	64	322/33/4	C	B	D	D	C	A	D	C	A
ATCA	161	322/33/4	C	B	D	D	C	A	D	C	A
Loadmaster	933 OSQ	322/22/4	C	B	D	D	C	C	D	C	A
SAR Tech	131	222/22/2	C	B	D	C	C	A	D	C	A
*AMTO	56	433/33/4	C	B	D	D	C	C	D	C	A
*AEROMED TECH	717	322/22/4	C	B	D	D	C	C	D	C	A
*(while employed in chamber)											
GROUP B											
AEROMED TECH	717	322/22/4	E	F	E	E	C	C	E	C	C
AMTO	56J	433/33/4	E	F	E	E	C	C	E	C	C
MED A	711 OSQ	322/22/4	E	F	E	E	C	C	E	C	C
Flt Attendant		333/33/4	E	F	E	E	C	C	E	C	C
Steward	862	333/33/4	E	F	E	E	C	C	E	C	C
Flt Surg	55	433/33/4	E	F	E	E	C	C	E	C	C
Flt Nur	57	322/22/4	E	F	E	E	C	C	E	C	C
AWACS (WSE)	521,524	333/33/4	E	F	E	E	C	C	E	C	C
Periodicity A - every year											
Type I Medical - Questionnaire, BMI, BP, Audiogram, Visual lab group 1, Flight Surgeon clinical review											
Periodicity B - odd year ages											
Type II Medical - Questionnaire, BMI, BP, Audiogram, Visual acuity											
Periodicity C - even year ages											
Lab Group 1 - CBC, Urinalysis, Cr, GGT											
Periodicity D - every 4 yrs to age 40, then every 2 yrs											
Cardiac Risk Evaluation - ECG, FBS, Total and HDL cholesterol, smoking, family history of CAD before 60 yrs old.											
Periodicity E - every 5 yrs to age 40, then every 2 yrs											
Info to be forwarded to DCIEM once completed.											
Periodicity F - odd years after age 40,											
Eye examination - except where indicated, required only when visual acuity is less than 6/6, 6/9 (VI or corrected equivalent).											

Initial distribution

Commander, U.S. Army Natick Research,
Development and Engineering Center
ATTN: SATNC-MIL (Documents
Librarian)
Natick, MA 01760-5040

Chairman
National Transportation Safety Board
800 Independence Avenue, S.W.
Washington, DC 20594

Commander
10th Medical Laboratory
ATTN: Audiologist
APO New York 09180

Naval Air Development Center
Technical Information Division
Technical Support Detachment
Warminster, PA 18974

Commanding Officer, Naval Medical
Research and Development Command
National Naval Medical Center
Bethesda, MD 20814-5044

Deputy Director, Defense Research
and Engineering
ATTN: Military Assistant
for Medical and Life Sciences
Washington, DC 20301-3080

Commander, U.S. Army Research
Institute of Environmental Medicine
Natick, MA 01760

Library
Naval Submarine Medical Research Lab
Box 900, Naval Sub Base
Groton, CT 06349-5900

Executive Director, U.S. Army Human
Research and Engineering Directorate
ATTN: Technical Library
Aberdeen Proving Ground, MD 21005

Commander
Man-Machine Integration System
Code 602
Naval Air Development Center
Warminster, PA 18974

Commander
Naval Air Development Center
ATTN: Code 602-B
Warminster, PA 18974

Commanding Officer
Armstrong Laboratory
Wright-Patterson
Air Force Base, OH 45433-6573

Director
Army Audiology and Speech Center
Walter Reed Army Medical Center
Washington, DC 20307-5001

Commander/Director
U.S. Army Combat Surveillance
and Target Acquisition Lab
ATTN: SFAE-IEW-JS
Fort Monmouth, NJ 07703-5305

Director
Federal Aviation Administration
FAA Technical Center
Atlantic City, NJ 08405

Director
Walter Reed Army Institute of Research
Washington, DC 20307-5100

Commander, U.S. Army Test
and Evaluation Command
Directorate for Test and Evaluation
ATTN: AMSTE-TA-M (Human Factors
Group)
Aberdeen Proving Ground,
MD 21005-5055

Naval Air Systems Command
Technical Air Library 950D
Room 278, Jefferson Plaza II
Department of the Navy
Washington, DC 20361

Director
U.S. Army Ballistic
Research Laboratory
ATTN: DRXBR-OD-ST Tech Reports
Aberdeen Proving Ground, MD 21005

Commander
U.S. Army Medical Research
Institute of Chemical Defense
ATTN: SGRD-UV-AO
Aberdeen Proving Ground,
MD 21010-5425

Commander
USAMRMC
ATTN: SGRD-RMS
Fort Detrick, Frederick, MD 21702-5012

HQ DA (DASG-PSP-O)
5109 Leesburg Pike
Falls Church, VA 22041-3258

Harry Diamond Laboratories
ATTN: Technical Information Branch
2800 Powder Mill Road
Adelphi, MD 20783-1197

U.S. Army Materiel Systems
Analysis Agency
ATTN: AMXSY-PA (Reports Processing)
Aberdeen Proving Ground
MD 21005-5071

U.S. Army Ordnance Center
and School Library
Simpson Hall, Building 3071
Aberdeen Proving Ground, MD 21005

U.S. Army Environmental
Hygiene Agency
ATTN: HSHB-MO-A
Aberdeen Proving Ground, MD 21010

Technical Library Chemical Research
and Development Center
Aberdeen Proving Ground, MD
21010-5423

Commander
U.S. Army Medical Research
Institute of Infectious Disease
ATTN: SGRD-UIZ-C
Fort Detrick, Frederick, MD 21702

Director, Biological
Sciences Division
Office of Naval Research
600 North Quincy Street
Arlington, VA 22217

Commandant
U.S. Army Aviation
Logistics School ATTN: ATSQ-TDN
Fort Eustis, VA 23604

Headquarters (ATMD)
U.S. Army Training
and Doctrine Command
ATTN: ATBO-M
Fort Monroe, VA 23651

IAF Liaison Officer for Safety
USAF Safety Agency/SEFF
9750 Avenue G, SE
Kirtland Air Force Base
NM 87117-5671

Naval Aerospace Medical
Institute Library
Building 1953, Code 03L
Pensacola, FL 32508-5600

Command Surgeon
HQ USCENTCOM (CCSG)
U.S. Central Command
MacDill Air Force Base, FL 33608

Director
Directorate of Combat Developments
ATTN: ATZQ-CD
Building 515
Fort Rucker, AL 36362

U.S. Air Force Institute
of Technology (AFIT/LDEE)
Building 640, Area B
Wright-Patterson
Air Force Base, OH 45433

Henry L. Taylor
Director, Institute of Aviation
University of Illinois-Willard Airport
Savoy, IL 61874

Chief, National Guard Bureau
ATTN: NGB-ARS
Arlington Hall Station
111 South George Mason Drive
Arlington, VA 22204-1382

AAMRL/HEX
Wright-Patterson
Air Force Base, OH 45433

Commander
U.S. Army Aviation and Troop Command
ATTN: AMSAT-R-ES
4300 Goodfellow Bouvelard
St. Louis, MO 63120-1798

U.S. Army Aviation and Troop Command
Library and Information Center Branch
ATTN: AMSAV-DIL
4300 Goodfellow Boulevard
St. Louis, MO 63120

Federal Aviation Administration
Civil Aeromedical Institute
Library AAM-400A
P.O. Box 25082
Oklahoma City, OK 73125

Commander
U.S. Army Medical Department
and School
ATTN: Library
Fort Sam Houston, TX 78234

Commander
U.S. Army Institute of Surgical Research
ATTN: SGRD-USM
Fort Sam Houston, TX 78234-6200

Air University Library
(AUL/LSE)
Maxwell Air Force Base, AL 36112

Product Manager
Aviation Life Support Equipment
ATTN: SFAE-AV-LSE
4300 Goodfellow Boulevard
St. Louis, MO 63120-1798

Commander and Director
USAE Waterways Experiment Station
ATTN: CEWES-IM-MI-R,
CD Department
3909 Halls Ferry Road
Vicksburg, MS 39180-6199

Commanding Officer
Naval Biodynamics Laboratory
P.O. Box 24907
New Orleans, LA 70189-0407

Assistant Commandant
U.S. Army Field Artillery School
ATTN: Morris Swott Technical Library
Fort Sill, OK 73503-0312

Mr. Peter Seib
Human Engineering Crew Station
Box 266
Westland Helicopters Limited
Yeovil, Somerset BA20 2YB UK

U.S. Army Dugway Proving Ground
Technical Library, Building 5330
Dugway, UT 84022

U.S. Army Yuma Proving Ground
Technical Library
Yuma, AZ 85364

AFFTC Technical Library
6510 TW/TSTL
Edwards Air Force Base,
CA 93523-5000

Commander
Code 3431
Naval Weapons Center
China Lake, CA 93555

Aeromechanics Laboratory
U.S. Army Research and Technical Labs
Ames Research Center, M/S 215-1
Moffett Field, CA 94035

Sixth U.S. Army
ATTN: SMA
Presidio of San Francisco, CA 94129

Commander
U.S. Army Aeromedical Center
Fort Rucker, AL 36362

Strughold Aeromedical Library
Document Service Section
2511 Kennedy Circle
Brooks Air Force Base, TX 78235-5122

Dr. Diane Damos
Department of Human Factors
ISSM, USC
Los Angeles, CA 90089-0021

U.S. Army White Sands
Missile Range
ATTN: STEWS-IM-ST
White Sands Missile Range, NM 88002

Director, Airworthiness Qualification Test
Directorate (ATTC)
ATTN: STEAT-AQ-O-TR (Tech Lib)
75 North Flightline Road
Edwards Air Force Base, CA 93523-6100

Ms. Sandra G. Hart
Ames Research Center
MS 262-3
Moffett Field, CA 94035

Commander
USAMRMC
ATTN: SGRD-UMZ
Fort Detrick, Frederick, MD 21702-5009

Commander
U.S. Army Health Services Command
ATTN: HSOP-SO
Fort Sam Houston, TX 78234-6000

U. S. Army Research Institute
Aviation R&D Activity
ATTN: PERI-IR
Fort Rucker, AL 36362

Commander
U.S. Army Safety Center
Fort Rucker, AL 36362

U.S. Army Aircraft Development
Test Activity
ATTN: STEBG-MP-P
Cairns Army Air Field
Fort Rucker, AL 36362

Commander
USAMRMC
ATTN: SGRD-PLC (COL R. Gifford)
Fort Detrick, Frederick, MD 21702

TRADOC Aviation LO
Unit 21551, Box A-209-A
APO AE 09777

Netherlands Army Liaison Office
Building 602
Fort Rucker, AL 36362

British Army Liaison Office
Building 602
Fort Rucker, AL 36362

Italian Army Liaison Office
Building 602
Fort Rucker, AL 36362

Directorate of Training Development
Building 502
Fort Rucker, AL 36362

Chief
USAHEL/USAAVNC Field Office
P. O. Box 716
Fort Rucker, AL 36362-5349

Commander, U.S. Army Aviation Center
and Fort Rucker
ATTN: ATZQ-CG
Fort Rucker, AL 36362

Dr. Sehchang Hah
Dept. of Behavior Sciences and
Leadership, Building 601, Room 281
U. S. Military Academy
West Point, NY 10996-1784

Canadian Army Liaison Office
Building 602
Fort Rucker, AL 36362

German Army Liaison Office
Building 602
Fort Rucker, AL 36362

French Army Liaison Office
USAAVNC (Building 602)
Fort Rucker, AL 36362-5021

Australian Army Liaison Office
Building 602
Fort Rucker, AL 36362

Dr. Garrison Rapmund
6 Burning Tree Court
Bethesda, MD 20817

Commandant, Royal Air Force
Institute of Aviation Medicine
Farnborough, Hampshire GU14 6SZ UK

Defense Technical Information
Cameron Station, Building 5
Alexandra, VA 22304-6145

Commander, U.S. Army Foreign Science
and Technology Center
AIFRTA (Davis)
220 7th Street, NE
Charlottesville, VA 22901-5396

Commander
Applied Technology Laboratory
USARTL-ATCOM
ATTN: Library, Building 401
Fort Eustis, VA 23604

Commander, U.S. Air Force
Development Test Center
101 West D Avenue, Suite 117
Eglin Air Force Base, FL 32542-5495

Aviation Medicine Clinic
TMC #22, SAAF
Fort Bragg, NC 28305

Dr. H. Dix Christensen
Bio-Medical Science Building, Room 753
Post Office Box 26901
Oklahoma City, OK 73190

Commander, U.S. Army Missile
Command
Redstone Scientific Information Center
ATTN: AMSMI-RD-CS-R
/ILL Documents
Redstone Arsenal, AL 35898

Aerospace Medicine Team
HQ ACC/SGST3
162 Dodd Boulevard, Suite 100
Langley Air Force Base,
VA 23665-1995

U.S. Army Research and Technology
Laboratories (AVSCOM)
Propulsion Laboratory MS 302-2
NASA Lewis Research Center
Cleveland, OH 44135

Commander
USAMRMC
ATTN: SGRD-ZC (COL John F. Glenn)
Fort Detrick, Frederick, MD 21702-5012

Dr. Eugene S. Channing
166 Baughman's Lane
Frederick, MD 21702-4083

U.S. Army Medical Department
and School
USAMRDALC Liaison
ATTN: HSMC-FR
Fort Sam Houston, TX 78234

NVESD
AMSEL-RD-NV-ASID-PST
(Attn: Trang Bui)
10221 Burbeck Road
Fort Belvoir, VA 22060-5806

CA Av Med
HQ DAAC
Middle Wallop
Stockbridge, Hants S020 8DY UK

Dr. Christine Schlichting
Behavioral Sciences Department
Box 900, NAVUBASE NLON
Groton, CT 06349-5900

Commander
Aviation Applied Technology Directorate
ATTN: AMSAT-R-TV
Fort Eustis, VA 23604-5577

COL Yehezkel G. Caine, MD
Surgeon General, Israel Air Force
Aeromedical Center Library
P. O. Box 02166 I.D.F.
Israel

HQ ACC/DOHP
205 Dodd Boulevard, Suite 101
Langley Air Force Base,
VA 23665-2789

41st Rescue Squadron
41st RQS/SG
940 Range Road
Patrick Air Force Base,
FL 32925-5001

48th Rescue Squadron
48th RQS/SG
801 Dezonias Road
Holloman Air Force Base,
NM 88330-7715

HQ, AFOMA
ATTN: SGPA (Aerospace Medicine)
Bolling Air Force Base,
Washington, DC 20332-6128

ARNG Readiness Center
ATTN: NGB-AVN-OP
Arlington Hall Station
111 South George Mason Drive
Arlington, VA 22204-1382

35th Fighter Wing
35th FW/SG
PSC 1013
APO AE 09725-2055

66th Rescue Squadron
66th RQS/SG
4345 Tyndall Avenue
Nellis Air Force Base, NV 89191-6076

71st Rescue Squadron
71st RQS/SG
1139 Redstone Road
Patrick Air Force Base,
FL 32925-5000

Director
Aviation Research, Development
and Engineering Center
ATTN: AMSAT-R-Z
4300 Goodfellow Boulevard
St. Louis, MO 63120-1798

Commander
USAMRMC
ATTN: SGRD-ZB (COL C. Fred Tyner)
Fort Detrick, Frederick, MD 21702-5012

Commandant
U.S. Army Command and General Staff
College
ATTN: ATZL-SWS-L
Fort Leavenworth, KS 66027-6900

ARNG Readiness Center
ATTN: NGB-AVN-OP
Arlington Hall Station
111 South George Mason Drive
Arlington, VA 22204-1382

Director
Army Personnel Research Establishment
Farnborough, Hants GU14 6SZ UK

Dr. A. Kornfield
895 Head Street
San Francisco, CA 94132-2813

ARNG Readiness Center
ATTN: NGB-AVN-OP
Arlington Hall Station
111 South George Mason Drive
Arlington, VA 22204-1382

Cdr, PERSCOM
ATTN: TAPC-PLA
200 Stovall Street, Rm 3N25
Alexandria, VA 22332-0413

HQ, AFOMA
ATTN; SGPA (Aerospace Medicine)
Bolling Air Force Base,
Washington, DC 20332-6188